REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-16 are pending in the present application. Claims 1 and 9 are amended by the present amendment.

In the outstanding Office Action, Claims 1-6, 8-14, and 16 were rejected under 35 U.S.C. §103(a) as unpatentable over Ishibashi et al. (U.S. Patent 5,808,979, herein "Ishibashi"), and Claims 7 and 15 were rejected under 35 U.S.C. §103(a) as unpatentable over Ishibashi in view of Nobukuni et al. (U.S. Patent Application Publication No. 2001/0053115, herein "Nobukuni").

In light of the outstanding rejections on the merits of the claims, independent Claims 1 and 9 have been amended to more clearly recite that an equalization unit has first frequency-gain characteristics that obtain a gain of not less than 15 dB of a frequency corresponding to a shortest pit or mark, and second frequency-gain characteristics in which a gain attenuates within a frequency band not less than the frequency corresponding to the shortest pit or mark. The claim amendments find support in Figure 5 and its corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to an apparatus for reproducing a disk in which information is recorded by pits or marks with various lengths. The apparatus includes a photodetection unit and a tracking error signal generation unit that includes an equalization unit. The equalization unit has first frequency-gain characteristics that obtain a gain of not less than 15 dB at the frequency corresponding to a shortest pit or mark and second frequency-gain characteristics in which a gain attenuates within a frequency band not less than the frequency corresponding to the shortest pit or mark. Claim 9 has been amended similar to Claim 1.

In a non-limiting example, Figure 5 shows the frequency corresponding to the shortest pit or mark as being Fmax and this frequency is coincident with the maximum gain of the equalization unit, a feature which advantageously makes the claimed device capable to generate an accurate tracking error signal even from the shortest pit or mark. Further, Figure 5 shows that the gain attenuates within the frequency band not less than the frequency corresponding to the shortest pit or mark, a feature that advantageously permits the claimed device to control a noise amplification in a high frequency band.

Turning to the applied art, Ishibashi discloses a tracking error signal detector that tracks an error based on a time change in an intensity distribution of a laser beam. However, as recognized by the outstanding Office Action at page 3, first two lines, Ishibashi "does not distinctly disclose [that] the equalization unit has a gain of not less than 15 dB at a frequency corresponding to a shortest pit or mark." In order to remedy this shortfall of Ishibashi, the outstanding Office Action states that it would have been obvious to one of ordinary skill in the art to adjust a gain of the equalization unit to be not less than 15 dB after routine experiment.

However, Applicant respectfully submits that Ishibashi explicitly describes at column 7, line 50 to column 8, line 7, and shows in Figure 2B that a frequency f_6 at which a gain reaches a maximum value is not coincident with a maximum value of a signal frequency and the gain is maintained at **a constant level** at frequencies higher than the f_6 frequency, contrary to Claims 1 and 9 that recite that the gain **attenuates** within a frequency band not less than the frequency corresponding to the shortest pit of mark.

Accordingly, Applicants respectfully submit that Ishibashi, even if modified by one of ordinary skill in the art to adjust the gain of the equalization unit, does not teach or suggest the newly added features.

In addition, the outstanding Office Action states in the first full paragraph on page 3 that one of ordinary skill in the art would modify the device of Ishibashi because Ishibashi "disclose the general condition as phase lead filter is used as the boost filter for high frequency ... is with a high 20 dB/dec boost characteristic."

However, Applicant respectfully submits that the language "20 dB/dec" in Ishibashi is misconstrued by the outstanding Office Action as discussed next. The language 20 dB/dec indicates that a gain increases by 20 dB each time a frequency increases 10 times. Thus, because the frequency f_5 in Ishibashi is equal to 5 MHz and the frequency f_6 is equal 20 MHz (a ratio of f_6/f_5 is 4), the gain of f_6 **increases by 10 dB** at most when compared with the gain of f_5. On the contrary, amended Claims 1 and 9 recite that the gain increases **not less than 15 dB**.

Accordingly, Applicant respectfully submits that there is no motivation or reason for one of ordinary skill in the art to modify Ishibashi as suggested by the outstanding Office Action and also, Ishibashi does not teach or suggest each claimed feature. Thus, it is respectfully submitted that independent Claims 1 and 9 and each of the claims depending therefrom patentably distinguish over Ishibashi.

Nobukuni has been considered but does not overcome the deficiencies of Ishibashi. Accordingly, it is respectfully submitted that Claims 1 and 9 and each of the claims depending therefrom patentably distinguish over Ishibashi and Nobukuni, either alone or in combination.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

R Fetea

Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Remus F. Fetea, Ph.D.
Registration No. 59,140

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)
RFF/rac

I:\ATTY\RFF\24S\249304\249304US-AM.DOC